DMX REFERENCE

Perseo BEAM

Ayrton



Manufacturer	Ayrton
GDTF file	Ayrton_Perseo_BEAM_159119.gdtf
GDTF revision	V1.51 Add_Emitter_Dimmer · 2026-09-08
Generated	2026-11-23

Contents

1 About this manual 2
2 Quick reference 3
3 Safety instructions 4
4 Product description 5
5 Installation 6
6 Connections 6
7 Operation 7
8 Functions at a glance 8
9 DMX channels 11
Mode Extended_540 12
Mode Standard_540 20
Mode Basic_540 24
10 Technical specifications 26
11 Maintenance and cleaning 27
12 Troubleshooting 27
13 Disposal 28

1 About this manual

This document describes the Perseo BEAM by Ayrton. It was compiled from the GDTF file Ayrton_Perseo_BEAM_159119.gdtf from the GDTF-Share library.

File revision: “V1.51 Add_Emitter_Dimmer”.

The DMX modes, the channel functions and the technical data are given as the GDTF file states them. Installation, operation from the device's control panel, service and safety instructions are described in the manufacturer's original user manual, which takes precedence over this document.

This document was not issued or endorsed by Ayrton; product names and trademarks belong to their owners.

Safety notices are marked with signal words according to the severity of the hazard: DANGER – an imminent hazard that will result in death or serious injury; WARNING – a potential hazard that could result in death or serious injury; CAUTION – a potential hazard that could result in minor injury or property damage; NOTE – additional information for correct and safe use.

> **NOTE** This product is designed for stage and effect lighting. It is not suitable for household room illumination.

2 Quick reference

Parameter	Value
Power consumption	700 W
Weight	41.5 kg

DMX modes

Mode	Channels	Units in one universe	First start addresses
Extended_540	42	12	1, 43, 85, 127, ...
Standard_540	31	16	1, 32, 63, 94, ...
Basic_540	29	17	1, 30, 59, 88, ...

No light? Check these channels

- Extended_540: CH 7 Shutter at 11–20, 118–126, 181–191 or 246–255 “open”; CH 8 Dimmer above 0
- Standard_540: CH 7 Shutter at 11–20, 118–126, 181–191 or 246–255 “open”; CH 8 Dimmer above 0
- Basic_540: CH 5 Shutter at 11–20, 118–126, 181–191 or 246–255 “open”; CH 6 Dimmer above 0


Read the manual before use


Risk of electric shock


Do not stare into the light


Indoor use only

3 Safety instructions


Read the manual before use


Risk of electric shock


Do not stare into the light


Indoor use only

⚠ WARNING

- This device is intended for professional use. Installation, connection, setup and maintenance must be carried out only by suitably qualified persons who have read this manual.
- Use the device only for its intended purpose and as described in this manual.
- Do not open the housing and do not modify or tamper with the device. Refer all repairs to an authorized service center.
- Do not use the device if its housing, power or data cable, or a connector is damaged, if the device has been dropped, or if liquid or a foreign object has entered it. In such a case, have it checked by a service center.
- Disconnect the device from the power supply before cleaning, maintenance or any work on the connections.
- After moving the device from a cold to a warm environment, let it reach room temperature before switching it on to prevent condensation inside.
- The device is not a toy; keep it out of the reach of children.

⚠ WARNING

- Connect the device only to a properly installed mains outlet with a protective earth (ground) contact. The outlet or other means of disconnection must remain easily accessible.
- Power supply: 100–240 V, 50/60 Hz. Before connecting, make sure that the mains voltage matches this value and the value on the rating plate of the device.
- Do not connect the device to a dimmer or to a dimmed circuit.
- Use only the original power cable or a cable with identical ratings. Protect the cable from damage, do not run it over sharp edges, and never unplug it by pulling on the cable.
- When connecting several devices to one circuit, do not exceed its permitted load.
- Do not touch the device with wet hands.

⚠ WARNING

- This device is designed for indoor use only. Protect it from rain, splashing water, moisture and dust, and do not place containers with liquids on it.
- Do not operate the device in high humidity, near water, or where condensation can form on it.

⚠ CAUTION

- This device emits intense light. Do not look directly into the light source or the beam at close range; doing so may damage your eyes.
- Do not aim the beam at the eyes of people or animals at close range, and do not view the light source through optical instruments (binoculars, camera lenses).
- Do not aim the beam at flammable or heat-sensitive materials at close range.

> ⚠ **CAUTION**
>
> - Strobe and fast flashing light effects can trigger epileptic seizures in susceptible people (photosensitive epilepsy) and can cause nausea or disorientation.
> - Inform the audience and performers in advance that strobe effects will be used, for example with a notice at the entrance, and do not use them longer than necessary.

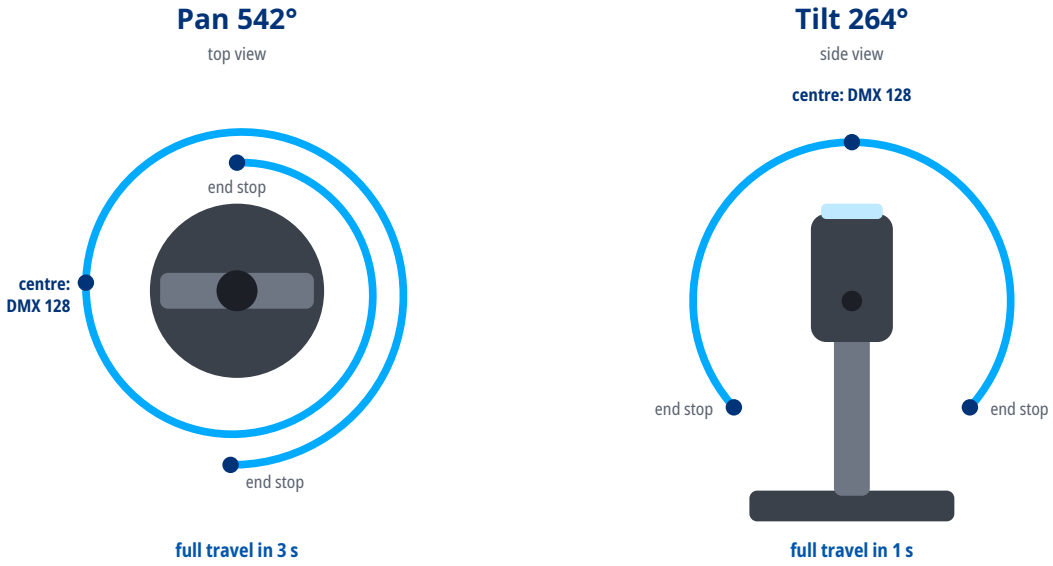
> ⚠ **WARNING**
>
> - The moving parts of the device (for example the head or arms) can move quickly and unexpectedly at any time – after power-on, during a reset, or on a command from the controller.
> - Keep yourself and any objects out of the range of movement. While the device is switched on, do not touch the moving parts, move them by hand, or obstruct their movement; this can cause injury (pinching) and damage the drive.
> - Do not carry the device by its moving parts. If the device has a transport lock, engage it before transport and release it before switching on.

4 Product description

Description in the GDTF file

“Classical 5 Series - GDTF in progress Control Channel V224”

Range of movement



Full-travel times as stated in the GDTF file.

5 Installation

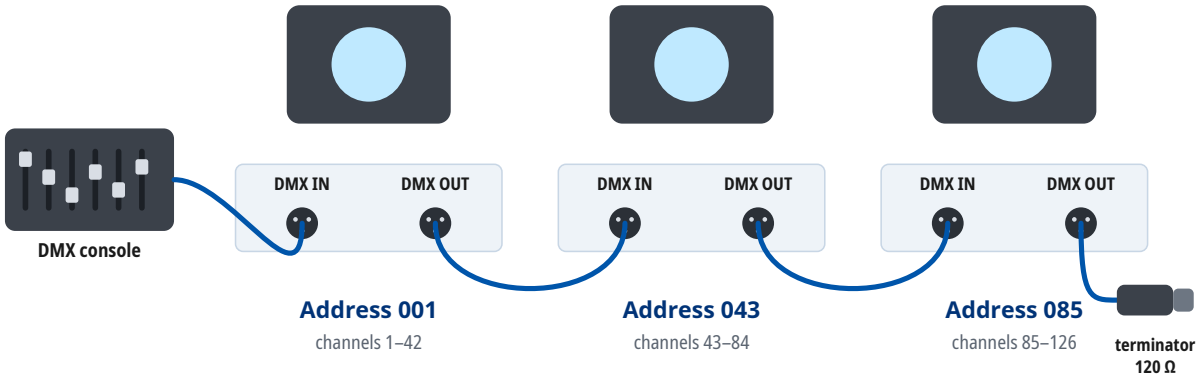
⚠ **WARNING**

- Rigging must be carried out only by qualified persons in accordance with applicable regulations, in particular those for work at height.
- The supporting structure and fixings must safely carry the weight of all suspended devices; verify their load capacity in advance.
- Weight of the device: 41.5 kg.
- Use suitable mounting hardware (for example truss clamps) and tighten all screw connections properly.
- Always secure the suspended device against falling with a safety cable of adequate load capacity, routed through a fixed point of the device and around the supporting structure.
- During installation and removal, keep people out of the area below the work position.
- Regularly inspect the fixings and the safety cable for damage, corrosion and loosening.

6 Connections

- Use shielded cable designed for DMX512 with an impedance of 110 Ω. Ordinary microphone cable is not suitable for DMX, especially over longer distances.
- Connect the devices in a daisy chain: connect the DMX OUT of one device to the DMX IN of the next. Do not split the line with Y-cables or wire it in a star; the line may be split only with a DMX splitter.
- Connect the shield to pin 1 only. Do not connect the shield (ground) to the metal shell of the connector; this can cause short circuits or erratic behavior.
- XLR pin assignment: pin 1 – shield (ground), pin 2 – Data- (Data Complement), pin 3 – Data+ (Data True). On 5-pin connectors, pins 4 and 5 are not connected; a 5-pin connector can be connected to a 3-pin one with a cable adapter.
- Terminate the end of the line (for impedance matching): plug an XLR connector with a 120 Ω, ¼ W resistor between pins 2 and 3 into the DMX OUT of the last device. This reduces the risk of erratic behavior.
- Connect no more than 32 devices to one DMX line. For more devices or longer runs, use a DMX splitter or booster.

DMX line



Mode Extended_540: every unit occupies 42 channels from its address. At most 32 units on one line; for more units or longer runs use a DMX splitter. A 120 Ω terminator closes the last DMX OUT.

7 Operation

Setting the DMX address

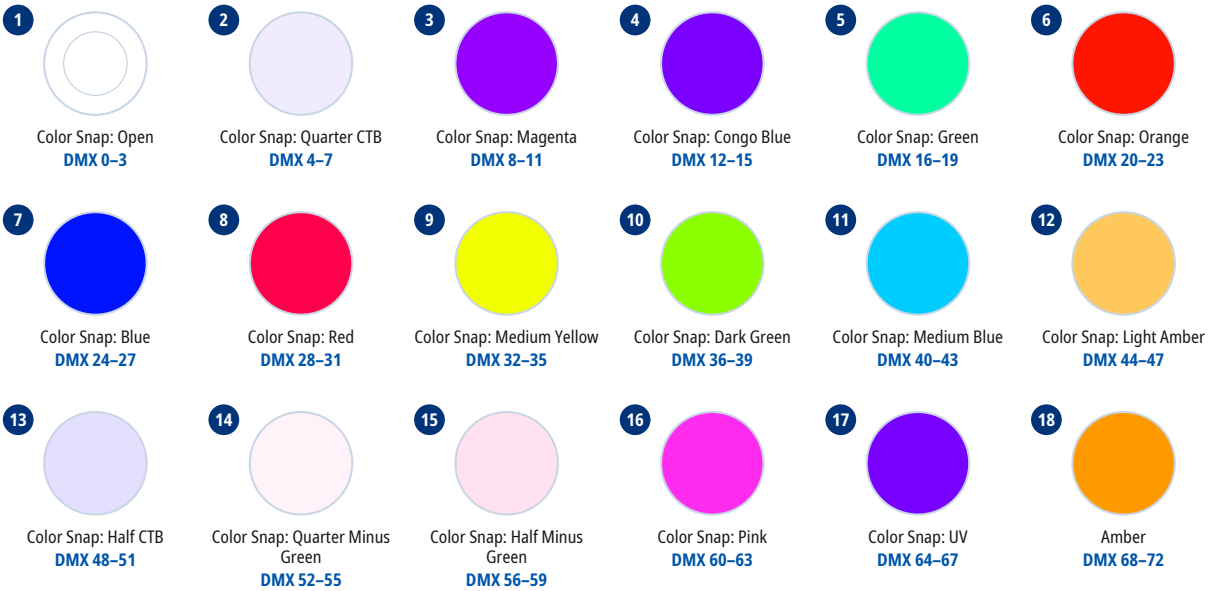
- The device occupies as many consecutive channels in the DMX universe as the selected DMX mode uses, starting at the set start address.
- Number of channels occupied in the DMX mode “Extended_540”: 42.
- Choose start addresses so that the channels of individual devices do not overlap and the last occupied channel does not exceed 512. Devices with the same start address and mode respond identically.
- For several devices in a row in the DMX mode “Extended_540”, you can use, for example, the start addresses 1, 43, 85, 127.
- The DMX mode set on the device must match the fixture profile (personality) used in the controller.
- The device supports RDM (Remote Device Management), two-way communication with the controller over the DMX line.

8 Functions at a glance

Functions in each DMX mode

	Extended_540 42 channels	Standard_540 31 channels	Basic_540 29 channels
Pan / Tilt	1, 3, 6	1, 3, 6	1, 2, 4
Pan / Tilt resolution	16 bit	16 bit	8 bit
Dimmer	8	8	6
Dimmer resolution	16 bit	8 bit	8 bit
Shutter / strobe	7	7	5
Color mixing	21, 23, 25	17–19	15–17
Color temperature	27	20	18
Color wheel	19	16	14
Gobo wheel	29, 32	21, 23	19, 21
Gobo rotation	30	22	20
Prism	34, 35, 37, 38	25–28	23–26
Frost	40, 41	29, 30	27, 28
Zoom	13	12	10
Focus	15, 17	13, 14	11, 12
Animation wheel	33	24	22

Color wheel



Gobo wheel 1

1
Gobo: Open
DMX 0–9

2 
Gobo: StarDust
DMX 10–18

3 
Gobo: IronFilings
DMX 19–27

4 
Gobo: NestedTriangle
DMX 28–36

5 
Gobo: Vortex
DMX 37–45

6 
Gobo: BlackAndWhiteTarget
DMX 46–54

7 
Gobo: SmokeRings
DMX 55–63

8 
Gobo: DotLine11
DMX 64–72

9 
Gobo: NestedRingsYellow
DMX 73–81

10 
CMYLiquidEffect
DMX 82–91

Gobo wheel 2

1
Gobo: Open
DMX 0–31

2 
Gobo: ConicalEffect
DMX 32

3 
Gobo: TargetEffect
DMX 33

4 
Gobo: SquareEffect
DMX 34

5 
Gobo: TriangleEffect
DMX 35

6 
Gobo: Organic
DMX 36

7 
Gobo: Water
DMX 37

8 
Gobo: Nuclear
DMX 38

9 
Gobo: MirrorBall
DMX 39

10 
Gobo: Fireworks
DMX 40

11 
Gobo: ZigZag
DMX 41

12 
Gobo: BigEye
DMX 42

13 
Gobo: Ant
DMX 43

14 
Gobo: AyrtonLogo
DMX 44

15 
Gobo: AbstractSquare
DMX 45

16 
Gobo: LostInTheBrain
DMX 46

17 
Gobo: DeepForest
DMX 47

18 
Gobo: TreeBark
DMX 48

19 
Gobo: StainedGlass
DMX 49

20 
Gobo: Digital
DMX 50

21 
Gobo: BoldLine
DMX 52

22 
Gobo: SquareLine
DMX 53

23 
Gobo: FourLines
DMX 54

24 
Gobo: SquareBeam
DMX 55

25 
Gobo: RubikCube
DMX 56

26 
Gobo: SquareBeam 1
DMX 57

27 
Gobo: SquareBeam25
DMX 58

28 
Gobo: SquareBeamMix
DMX 59

29 
Gobo: TriangleBeam
DMX 60

30 
Gobo: StarBeam
DMX 61

31 
Gobo: NeastedRing
DMX 62

32 
Gobo: BubbleLight
DMX 63

33 
Gobo: Arrow
DMX 64

34 
Gobo: FullBeam
DMX 66

35 
Gobo: Iris80
DMX 67

36 
Gobo: Iris60
DMX 68

37 
Gobo: Iris40
DMX 69

38 
Gobo: Iris20
DMX 70

39 
Gobo: DotTriangle
DMX 71

40 
DotMix
DMX 72–73

Animation wheel

1
Open

2 
AnimationWheel

Prism 1

1
Open
DMX 0–63

2 
8 facets
8-Circular
DMX 64–127

3 
6 facets
6-Linear
DMX 128–255

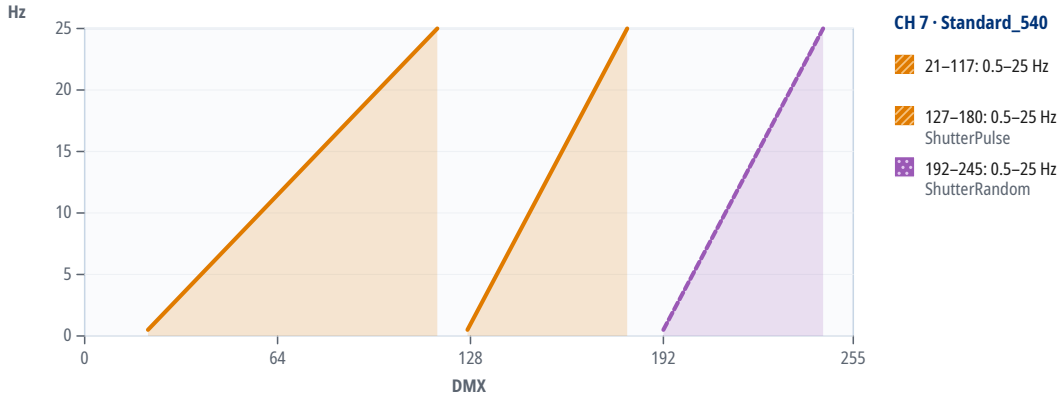
Prism 2

1
Open
DMX 0–63

2 
6 facets
6-linear
DMX 64–127

3 
16 facets
16-Circular
DMX 128–255

Strobe rate



9 DMX channels

Units in one DMX universe



Start addresses of 20 units in the mode “Extended_540”

Unit	Start address	Unit	Start address	Unit	Start address	Unit	Start address
1	1	6	211	11	421	16	U2 · 127
2	43	7	253	12	463	17	U2 · 169
3	85	8	295	13	U2 · 1	18	U2 · 211
4	127	9	337	14	U2 · 43	19	U2 · 253
5	169	10	379	15	U2 · 85	20	U2 · 295

Where a DMX universe is full, the next units continue in the next universe: “U2 · 1” is address 1 in the second universe, counted from the universe of the first unit.

RDM personalities

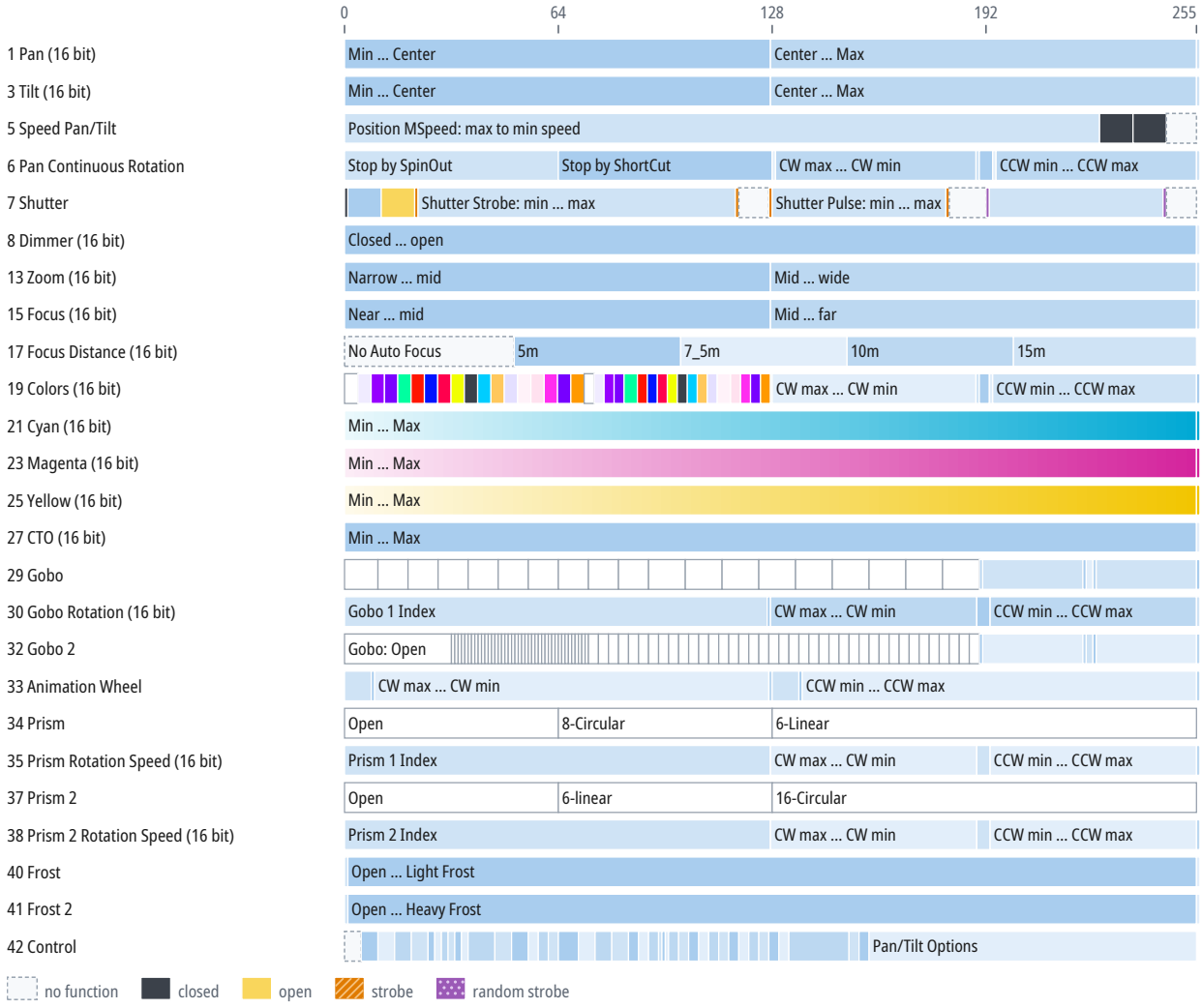
Mode	Channels	RDM personality
Extended_540	42	3
Standard_540	31	1
Basic_540	29	2

Mode Extended_540

16-bit parameters use two channels, coarse and fine: value = 256 × coarse value + fine value.

If the device receives DMX in this mode but gives no light, check these channels: CH 7 Shutter at 11–20, 118–126, 181–191 or 246–255 “open”; CH 8 Dimmer above 0. The GDTF file gives these values for a console's Highlight function: CH 7 Shutter 11, CH 8 Dimmer 255, CH 19 Colors 0, CH 21 Cyan 0, CH 23 Magenta 0, CH 25 Yellow 0, CH 27 CTO 0.

Channel functions at a glance



CH	Function	DMX	Description
1	Pan	0–127	Min ... Center
		128–255	Center ... Max
		255	Max
2	Pan Fine	0–255	Fine adjustment of CH 1
3	Tilt	0–127	Min ... Center
		128–255	Center ... Max
		255	Max
4	Tilt Fine	0–255	Fine adjustment of CH 3
5	Speed Pan/Tilt	0–225	Position MSpeed: max to min speed

CH	Function	DMX	Description
5	Speed Pan/Tilt (continued)	226–235	Blackout by movement
		236–245	Blackout by all wheels
		246–255	No function
6	Pan Continuous Rotation	0–63	Stop by SpinOut
		64–127	Stop by ShortCut
		128	CW max
		129–188	CW max ... CW min
		189	CW min
		190–193	Pause
		194	CCW min
		195–254	CCW min ... CCW max
		255	CCW max
7	Shutter	0	LED OFF: Closed
		1–10	LED OFF
		11–20	LED ON: open
		21	Shutter Strobe: min
		22–116	Shutter Strobe: min ... max
		117	Shutter Strobe: max
		118–126	LED ON: open
		127	Shutter Pulse: min
		128–179	Shutter Pulse: min ... max
		180	Shutter Pulse: max
		181–191	LED ON: open
		192	Shutter Random: min
		193–244	Shutter Random: min ... max
		245	Shutter Random: max
		246–255	LED ON: open
8	Dimmer	0–255	Closed ... open
		255	Open
9	Dimmer Fine	0–255	Fine adjustment of CH 8
13	Zoom	0–127	Narrow ... mid
		128–255	Mid ... wide
		255	Wide
14	Zoom Fine	0–255	Fine adjustment of CH 13
15	Focus		When CH 17 is 0:
		0–127	Near ... mid
		128–255	Mid ... far
		255	Far
			When CH 17 is 0:
		0–255	
16	Focus Fine	0–255	Fine adjustment of CH 15
17	Focus Distance	0–50	No Auto Focus

CH	Function	DMX	Description
17	Focus Distance (continued)	51–100	5m
		101–150	7_5m
		151–200	10m
		201–255	15m
18	Focus Distance Fine	0–255	Fine adjustment of CH 17
19	Colors	0–3	Color Snap: Open
		4–7	Color Snap: Quarter CTB
		8–11	Color Snap: Magenta
		12–15	Color Snap: Congo Blue
		16–19	Color Snap: Green
		20–23	Color Snap: Orange
		24–27	Color Snap: Blue
		28–31	Color Snap: Red
		32–35	Color Snap: Medium Yellow
		36–39	Color Snap: Dark Green
		40–43	Color Snap: Medium Blue
		44–47	Color Snap: Light Amber
		48–51	Color Snap: Half CTB
		52–55	Color Snap: Quarter Minus Green
		56–59	Color Snap: Half Minus Green
		60–63	Color Snap: Pink
		64–67	Color Snap: UV
		68–71	Color Snap: Amber
		72–74	Color Index: Open
		75–77	Color Index: Quarter CTB
		78–80	Color Index: Magenta
		81–83	Color Index: Congo Blue
		84–87	Color Index: Green
		88–90	Color Index: Orange
		91–93	Color Index: Blue
		94–96	Color Index: Red
		97–99	Color Index: Medium Yellow
		100–102	Color Index: Dark Green
		103–105	Color Index: Medium Blue
		106–108	Color Index: Light Amber
		109–111	Color Index: Half CTB
		112–115	Color Index: Quarter Minus Green
		116–118	Color Index: Half Minus Green
		119–121	Color Index: Pink
		122–124	Color Index: UV
		125–127	Color Index: Amber
		128–189	CW max ... CW min

CH	Function	DMX	Description
19	Colors (continued)	189–190	CW min ... stop
		190–193	Rainbow: stop
		193–194	Stop ... CCW min
		194–255	CCW min ... CCW max
		255	CCW max
20	Colors Fine	0–255	Fine adjustment of CH 19
21	Cyan	0–255	Min ... Max
		255	Max
22	Cyan Fine	0–255	Fine adjustment of CH 21
23	Magenta	0–255	Min ... Max
		255	Max
24	Magenta Fine	0–255	Fine adjustment of CH 23
25	Yellow	0–255	Min ... Max
		255	Max
26	Yellow Fine	0–255	Fine adjustment of CH 25
27	CTO	0–255	Min ... Max
		255	Max
28	CTO Fine	0–255	Fine adjustment of CH 27
29	Gobo	0–9	Gobo: Open
		10–18	Gobo: StarDust
		19–27	Gobo: IronFilings
		28–36	Gobo: NestedTriangle
		37–45	Gobo: Vortex
		46–54	Gobo: BlackAndWhiteTarget
		55–63	Gobo: SmokeRings
		64–72	Gobo: DotLine11
		73–81	Gobo: NestedRingsYellow
		82–90	Gobo: CMYLiquidEffect
		91–101	Gobo 1 Shake: StarDust (0.5–10 Hz)
		102–112	Gobo 1 Shake: IronFilings (0.5–10 Hz)
		113–123	Gobo 1 Shake: NestedTriangle (0.5–10 Hz)
		124–134	Gobo 1 Shake: Vortex (0.5–10 Hz)
		135–145	Gobo 1 Shake: BlackAndWhiteTarget (0.5–10 Hz)
		146–156	Gobo 1 Shake: SmokeRings (0.5–10 Hz)
		157–167	Gobo 1 Shake: DotLine11 (0.5–10 Hz)
		168–178	Gobo 1 Shake: NestedRingsYellow (0.5–10 Hz)
		179–189	Gobo 1 Shake: CMYLiquidEffect (0.5–10 Hz)
		190	CW max
		191–220	CW max ... CW min
		221	CW min
		222–223	Gobo 1 Wheel Rotation: Stop
		224	CCW min

CH	Function	DMX	Description
29	Gobo (continued)	225–254	CCW min … CCW max
		255	CCW max
30	Gobo Rotation	0–127	Gobo 1 Index (360°)
		128–189	CW max … CW min
		189	CW min
		190–193	Gobo 1 Rotation: stop
		194–255	CCW min … CCW max
		255	CCW max
31	Gobo Rotation Fine	0–255	Fine adjustment of CH 30
32	Gobo 2	0–31	Gobo: Open
		32	Gobo: ConicalEffect
		33	Gobo: TargetEffect
		34	Gobo: SquareEffect
		35	Gobo: TriangleEffect
		36	Gobo: Organic
		37	Gobo: Water
		38	Gobo: Nuclear
		39	Gobo: MirrorBall
		40	Gobo: Fireworks
		41	Gobo: ZigZag
		42	Gobo: BigEye
		43	Gobo: Ant
		44	Gobo: AyrtonLogo
		45	Gobo: AbstractSquare
		46	Gobo: LostInTheBrain
		47	Gobo: DeepForest
		48	Gobo: TreeBark
		49	Gobo: StainedGlass
		50	Gobo: Digital
		51	Gobo: Open
		52	Gobo: BoldLine
		53	Gobo: SquareLine
		54	Gobo: FourLines
		55	Gobo: SquareBeam
		56	Gobo: RubikCube
		57	Gobo: SquareBeam 1
		58	Gobo: SquareBeam25
		59	Gobo: SquareBeamMix
		60	Gobo: TriangleBeam
		61	Gobo: StarBeam
		62	Gobo: NeastedRing
		63	Gobo: BubbleLight

CH	Function	DMX	Description
32	Gobo 2 (continued)	64	Gobo: Arrow
		65	Gobo: Open
		66	Gobo: FullBeam
		67	Gobo: Iris80
		68	Gobo: Iris60
		69	Gobo: Iris40
		70	Gobo: Iris20
		71	Gobo: DotTriangle
		72	Gobo: DotMix
		73–75	Gobo 2 Shake: ConicalEffect
		76–78	Gobo 2 Shake: TargetEffect
		79–81	Gobo 2 Shake: SquareEffect
		82–84	Gobo 2 Shake: TriangleEffect
		85–87	Gobo 2 Shake: Organic
		88–90	Gobo 2 Shake: Water
		91–93	Gobo 2 Shake: Nuclear
		94–96	Gobo 2 Shake: MirrorBall
		97–99	Gobo 2 Shake: Fireworks
		100–102	Gobo 2 Shake: ZigZag
		103–105	Gobo 2 Shake: BigEye
		106–108	Gobo 2 Shake: Ant
		109–111	Gobo 2 Shake: AyrtonLogo
		112–114	Gobo 2 Shake: AbstractSquare
		115–117	Gobo 2 Shake: LostInTheBrain
		118–120	Gobo 2 Shake: DeepForest
		121–123	Gobo 2 Shake: TreeBark
		124–126	Gobo 2 Shake: StainedGlass
		127–129	Gobo 2 Shake: Digital
		130–132	Gobo 2 Shake: BoldLine
		133–135	Gobo 2 Shake: SquareLine
		136–138	Gobo 2 Shake: FourLines
		139–141	Gobo 2 Shake: SquareBeam
		142–144	Gobo 2 Shake: RubikCube
		145–147	Gobo 2 Shake: SquareBeam 1
		148–150	Gobo 2 Shake: SquareBeam25
		151–153	Gobo 2 Shake: SquareBeamMix
		154–156	Gobo 2 Shake: TriangleBeam
		157–159	Gobo 2 Shake: StarBeam
		160–162	Gobo 2 Shake: NeastedRing
		163–165	Gobo 2 Shake: BubbleLight
		166–168	Gobo 2 Shake: Arrow
		169–171	Gobo 2 Shake: FullBeam

CH	Function	DMX	Description
32	Gobo 2 (continued)	172–174	Gobo 2 Shake: Iris80
		175–177	Gobo 2 Shake: Iris60
		178–180	Gobo 2 Shake: Iris40
		181–183	Gobo 2 Shake: Iris20
		184–186	Gobo 2 Shake: DotTriangle
		187–189	Gobo 2 Shake: DotMix
		190	CW max
		191–220	CW max … CW min
		221	CW min
		222–223	Gobo 2 Wheel Rotation: Stop
		224	CCW min
		225–254	CCW min … CCW max
		255	CCW max
33	Animation Wheel	0–7	Animation Wheel: open
		8	CW max
		9–126	CW max … CW min
		127	CW min
		128–135	Animation Wheel 1 Spin: stop
		136	CCW min
		137–254	CCW min … CCW max
		255	CCW max
34	Prism	0–63	Open
		64–127	8-Circular
		128–255	6-Linear
35	Prism Rotation Speed	0–127	Prism 1 Index (360°)
		128–189	CW max … CW min
		189	CW min
		190–193	Prism 1 Rotation: stop
		194–255	CCW min … CCW max
		255	CCW max
36	Prism Rotation Speed Fine	0–255	Fine adjustment of CH 35
37	Prism 2	0–63	Open
		64–127	6-linear
		128–255	16-Circular
38	Prism 2 Rotation Speed	0–127	Prism 2 Index (360°)
		128–189	CW max … CW min
		189	CW min
		190–193	Prism 2 Rotation: stop
		194–255	CCW min … CCW max
		255	CCW max
39	Prism 2 Rotation Speed Fine	0–255	Fine adjustment of CH 38
40	Frost	0	Open

CH	Function	DMX	Description
40	Frost (continued)	1–254	Open ... Light Frost
		255	Light Frost
41	Frost 2	0	Open
		1–254	Open ... Heavy Frost
		255	Heavy Frost
42	Control	0–4	No Function
		5–9	Display Off
		10–14	Display On
		15–19	Display Inv Off
		20–24	Display Inv On
		25–26	Auto Fan
		27–28	Stage Fan
		29–30	Silence Fan
		31–32	Super Silence Fan
		33–34	Constant Fan OFF
		35–36	Constant Fan ON
		37–44	Fan Control Mode
		45–49	Square Law
		50–54	Linear
		55–57	1200 Hz
		58–60	2400 Hz
		61–63	16000 Hz
		64–69	25000 Hz
		70–74	Gobo Correction Off
		75–79	Gobo Correction On
		80–84	All Motor Reset
		85–87	Scan Motor Reset
		88–90	Color Motor Reset
		91–93	Gobo Motor Reset
		94	Gobo Motor Reset ... Reset P/T Fade Off
		95	Reset P/T Fade Off
		96	Reset P/T Fade On
		97–99	Other Motor Reset
		100–102	Frost Progresive OFF
		103–105	Frost Progresive ON
		106–108	CMY Speed Slow
		109–111	CMY Speed Fast
		112–114	Prerig INIT Off
		115–117	Prerig INIT On
		118–120	Pan/Tilt speed Fast
		121–123	Pan/Tilt speed Medium
		124–126	Pan/Tilt speed Slow

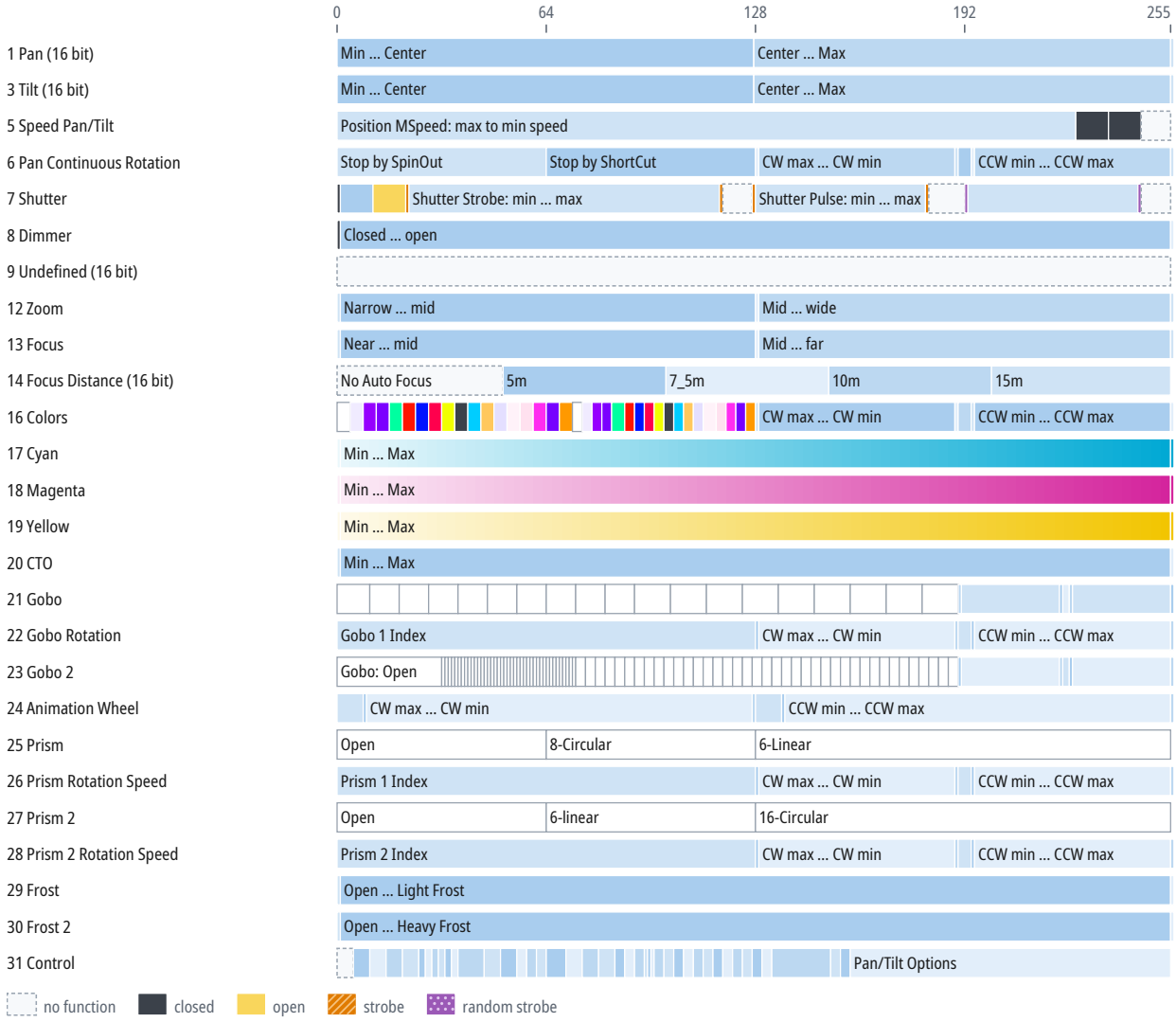
CH	Function	DMX	Description
42	Control (continued)	127–129	Pan/Tilt speed FS Mode
		130–132	Pan/Tilt speed Tracking360
		133–150	Position MSpeed 10
		151–153	Pan Degree 540
		154–156	Pan Degree 630
		157–255	Pan/Tilt Options

Mode Standard_540

16-bit parameters use two channels, coarse and fine: value = 256 × coarse value + fine value.

If the device receives DMX in this mode but gives no light, check these channels: CH 7 Shutter at 11–20, 118–126, 181–191 or 246–255 “open”; CH 8 Dimmer above 0. The GDTF file gives these values for a console's Highlight function: CH 7 Shutter 11, CH 8 Dimmer 255, CH 16 Colors 0, CH 17 Cyan 0, CH 18 Magenta 0, CH 19 Yellow 0, CH 20 CTO 0.

Channel functions at a glance



CH	Function	DMX	Description
1	Pan		Same as CH 1 in the mode “Extended_540” (p. 12)
2	Pan Fine	0–255	Fine adjustment of CH 1
3	Tilt		Same as CH 3 in the mode “Extended_540” (p. 12)
4	Tilt Fine	0–255	Fine adjustment of CH 3
5	Speed Pan/Tilt		Same as CH 5 in the mode “Extended_540” (p. 12)
6	Pan Continuous Rotation		Same as CH 6 in the mode “Extended_540” (p. 13)
7	Shutter		Same as CH 7 in the mode “Extended_540” (p. 13)
8	Dimmer	0	Closed
		1–254	Closed ... open
		255	Open
9	Undefined	0	
10	Undefined Fine	0–255	Fine adjustment of CH 9
11	Undefined Fine 2	0–255	
12	Zoom	0	Narrow
		1–127	Narrow ... mid
		128	Mid
		129–254	Mid ... wide
		255	Wide
13	Focus		When CH 14 is 0:
		0	Near
		1–127	Near ... mid
		128	Mid
		129–254	Mid ... far
		255	Far
			When CH 14 is 0:
		0–255	
14	Focus Distance		Same as CH 17 in the mode “Extended_540” (p. 13)
15	Focus Distance Fine	0–255	Fine adjustment of CH 14
16	Colors	0–3	Color Snap: Open
		4–7	Color Snap: Quarter CTB
		8–11	Color Snap: Magenta
		12–15	Color Snap: Congo Blue
		16–19	Color Snap: Green
		20–23	Color Snap: Orange
		24–27	Color Snap: Blue
		28–31	Color Snap: Red
		32–35	Color Snap: Medium Yellow
		36–39	Color Snap: Dark Green
		40–43	Color Snap: Medium Blue
		44–47	Color Snap: Light Amber

CH	Function	DMX	Description
16	Colors (continued)	48–51	Color Snap: Half CTB
		52–55	Color Snap: Quarter Minus Green
		56–59	Color Snap: Half Minus Green
		60–63	Color Snap: Pink
		64–67	Color Snap: UV
		68–71	Color Snap: Amber
		72–74	Color Index: Open
		75–77	Color Index: Quarter CTB
		78–80	Color Index: Magenta
		81–83	Color Index: Congo Blue
		84–87	Color Index: Green
		88–90	Color Index: Orange
		91–93	Color Index: Blue
		94–96	Color Index: Red
		97–99	Color Index: Medium Yellow
		100–102	Color Index: Dark Green
		103–105	Color Index: Medium Blue
		106–108	Color Index: Light Amber
		109–111	Color Index: Half CTB
		112–115	Color Index: Quarter Minus Green
		116–118	Color Index: Half Minus Green
		119–121	Color Index: Pink
		122–124	Color Index: UV
		125–127	Color Index: Amber
		128	CW max
		129–188	CW max … CW min
		189	CW min
		190–193	Rainbow: stop
		194	CCW min
		195–254	CCW min … CCW max
		255	CCW max
17	Cyan	0	Min
		1–254	Min … Max
		255	Max
18	Magenta	0	Min
		1–254	Min … Max
		255	Max
19	Yellow	0	Min
		1–254	Min … Max
		255	Max
20	CTO	0	Min

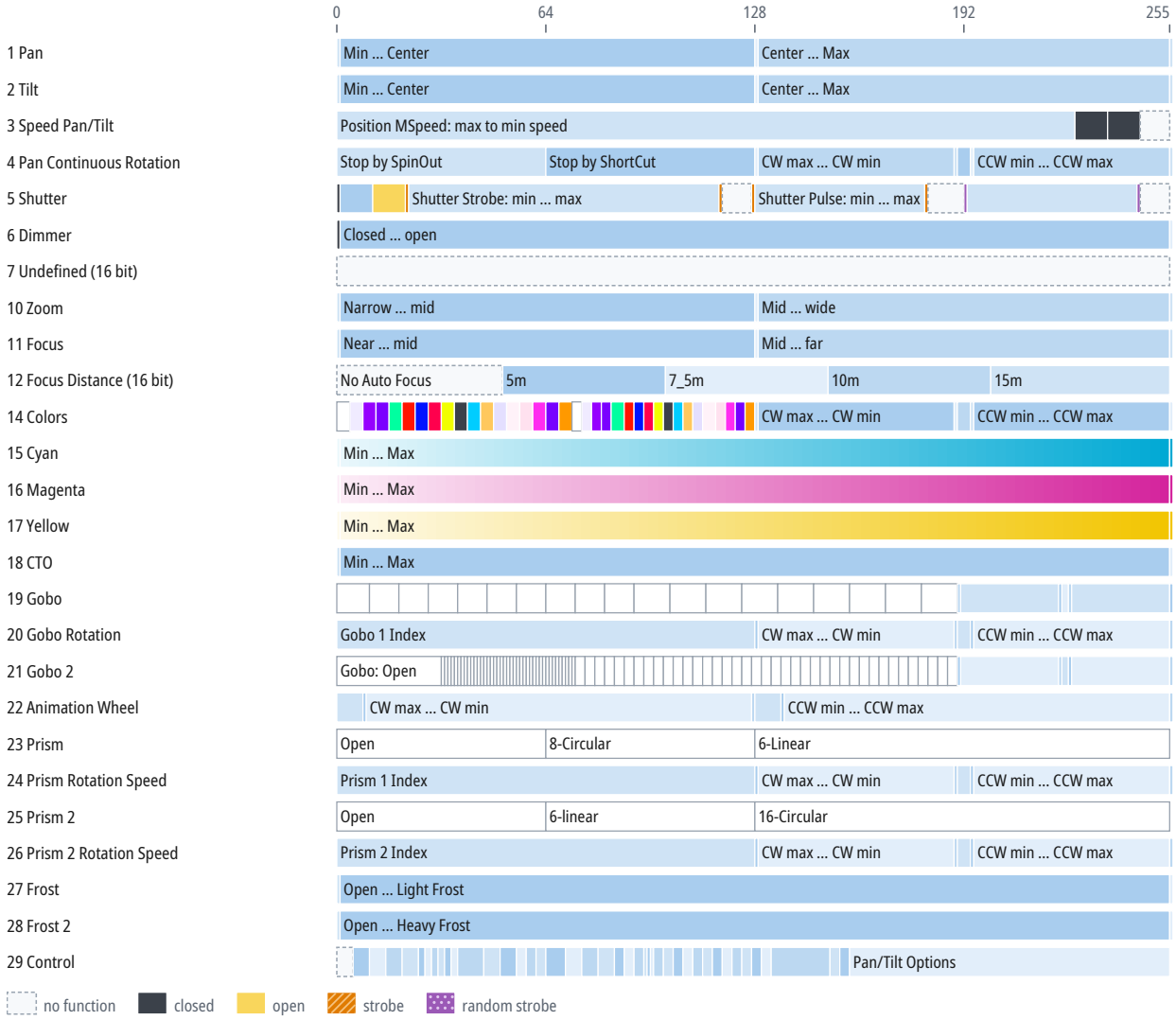
CH	Function	DMX	Description
20	CTO (continued)	1–254	Min ... Max
		255	Max
21	Gobo		Same as CH 29 in the mode “Extended_540” (p. 15)
22	Gobo Rotation	0–127	Gobo 1 Index (360°)
		128	CW max
		129–188	CW max ... CW min
		189	CW min
		190–193	Gobo 1 Rotation: stop
		194	CCW min
		195–254	CCW min ... CCW max
		255	CCW max
23	Gobo 2		Same as CH 32 in the mode “Extended_540” (p. 16)
24	Animation Wheel		Same as CH 33 in the mode “Extended_540” (p. 18)
25	Prism		Same as CH 34 in the mode “Extended_540” (p. 18)
26	Prism Rotation Speed	0–127	Prism 1 Index (360°)
		128	CW max
		129–188	CW max ... CW min
		189	CW min
		190–193	Prism 1 Rotation: stop
		194	CCW min
		195–254	CCW min ... CCW max
		255	CCW max
27	Prism 2		Same as CH 37 in the mode “Extended_540” (p. 18)
28	Prism 2 Rotation Speed	0–127	Prism 2 Index (360°)
		128	CW max
		129–188	CW max ... CW min
		189	CW min
		190–193	Prism 2 Rotation: stop
		194	CCW min
		195–254	CCW min ... CCW max
		255	CCW max
29	Frost		Same as CH 40 in the mode “Extended_540” (p. 18)
30	Frost 2		Same as CH 41 in the mode “Extended_540” (p. 19)
31	Control		Same as CH 42 in the mode “Extended_540” (p. 19)

Mode Basic_540

16-bit parameters use two channels, coarse and fine: value = 256 × coarse value + fine value.

If the device receives DMX in this mode but gives no light, check these channels: CH 5 Shutter at 11–20, 118–126, 181–191 or 246–255 “open”; CH 6 Dimmer above 0. The GDTF file gives these values for a console's Highlight function: CH 5 Shutter 11, CH 6 Dimmer 255, CH 14 Colors 0, CH 15 Cyan 0, CH 16 Magenta 0, CH 17 Yellow 0, CH 18 CTO 0.

Channel functions at a glance



CH	Function	DMX	Description
1	Pan	0	Min
		1–127	Min ... Center
		128	Center
		129–254	Center ... Max
		255	Max
2	Tilt	0	Min
		1–127	Min ... Center
		128	Center

CH	Function	DMX	Description
2	Tilt (continued)	129–254	Center … Max
		255	Max
3	Speed Pan/Tilt		Same as CH 5 in the mode “Extended_540” (p. 12)
4	Pan Continuous Rotation		Same as CH 6 in the mode “Extended_540” (p. 13)
5	Shutter		Same as CH 7 in the mode “Extended_540” (p. 13)
6	Dimmer		Same as CH 8 in the mode “Standard_540” (p. 21)
7	Undefined	0	
8	Undefined Fine	0–255	Fine adjustment of CH 7
9	Undefined Fine 2	0–255	
10	Zoom		Same as CH 12 in the mode “Standard_540” (p. 21)
11	Focus		When CH 12 is 0:
		0	Near
		1–127	Near … mid
		128	Mid
		129–254	Mid … far
		255	Far
			When CH 12 is 0:
		0–255	
12	Focus Distance		Same as CH 17 in the mode “Extended_540” (p. 13)
13	Focus Distance Fine	0–255	Fine adjustment of CH 12
14	Colors		Same as CH 16 in the mode “Standard_540” (p. 21)
15	Cyan		Same as CH 17 in the mode “Standard_540” (p. 22)
16	Magenta		Same as CH 18 in the mode “Standard_540” (p. 22)
17	Yellow		Same as CH 19 in the mode “Standard_540” (p. 22)
18	CTO		Same as CH 20 in the mode “Standard_540” (p. 22)
19	Gobo		Same as CH 29 in the mode “Extended_540” (p. 15)
20	Gobo Rotation		Same as CH 22 in the mode “Standard_540” (p. 23)
21	Gobo 2		Same as CH 32 in the mode “Extended_540” (p. 16)
22	Animation Wheel		Same as CH 33 in the mode “Extended_540” (p. 18)
23	Prism		Same as CH 34 in the mode “Extended_540” (p. 18)
24	Prism Rotation Speed		Same as CH 26 in the mode “Standard_540” (p. 23)
25	Prism 2		Same as CH 37 in the mode “Extended_540” (p. 18)
26	Prism 2 Rotation Speed		Same as CH 28 in the mode “Standard_540” (p. 23)
27	Frost		Same as CH 40 in the mode “Extended_540” (p. 18)
28	Frost 2		Same as CH 41 in the mode “Extended_540” (p. 19)
29	Control		Same as CH 42 in the mode “Extended_540” (p. 19)

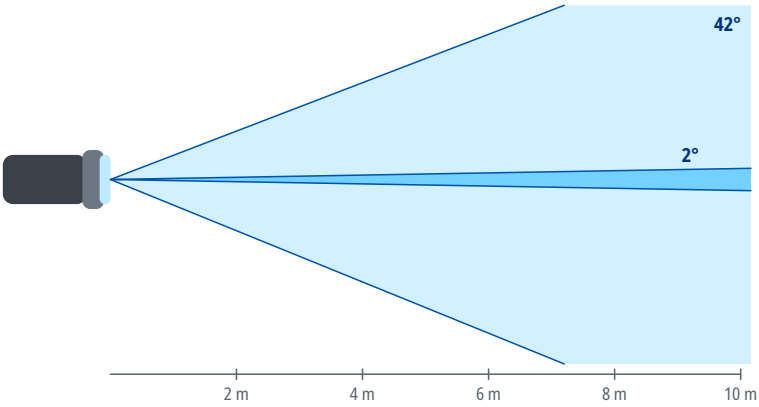
10 Technical specifications

Parameter	Value
Light	
Light source	LED
LED power	450 W
Luminous flux	16,000 lm
Color temperature	6,700 K
Color rendering index (CRI)	72
Optics	
Zoom	2–42°
Movement	
Pan	542.1°
Tilt	264°
Control	
DMX connection	5-pin XLR IN/OUT
RJ45 connectors	RJ45 IN/OUT
RDM	yes (manufacturer ID 0x4179, device model ID 0x0B06)
Electrical	
Power supply	100–240 V, 50/60 Hz
Power consumption	700 W
Power connectors	powerCONTRUE1TOP IN
Dimensions and construction	
Weight	41.5 kg
Operating environment	
Operating temperature	-20 to 45 °C

Speeds and ranges

Parameter	Value
Color temperature range	2700–6700 K
Strobe frequency	0.5–25 Hz
LED frequency	1200–16000 Hz
Color wheel rotation	up to 1800 °/s (300 rpm)
Gobo wheel 1 rotation	up to 702 °/s (117 rpm)
Gobo 1 rotation	up to 876 °/s (146 rpm)
Prism 1 rotation	up to 600 °/s (100 rpm)
Prism 2 rotation	up to 600 °/s (100 rpm)
Animation wheel rotation	up to 702 °/s (117 rpm)

Spot diameter



Distance	Ø 2°	Ø 42°
2 m	0.07 m	1.5 m
4 m	0.14 m	3.1 m
6 m	0.21 m	4.6 m
8 m	0.28 m	6.1 m
10 m	0.35 m	7.7 m
15 m	0.52 m	11.5 m

Spot diameter square to the beam axis, calculated from the beam angle.

11 Maintenance and cleaning

- Before cleaning and maintenance, switch the device off, disconnect it from the power supply and let it cool down.
- Clean the housing with a soft, dry or slightly damp cloth. Do not use solvents, abrasive cleaners or pressure washers, and make sure no liquid gets into the device.
- Clean optical parts (lenses, front glass), if the device has any, with a soft lint-free cloth and a cleaner intended for optics or glass.
- Regularly inspect the housing, cables, connectors and fixings. Have damaged parts replaced by a service center.
- How often to clean depends on the environment; dust, smoke and fog make the device dirty much faster.

12 Troubleshooting

Problem	Remedy
The device does not switch on	Check the supply voltage, the cables and the fuse, if the device has one.
The device does not respond to DMX	Check the start address, the selected DMX mode and whether it matches the profile in the controller, the cable connection to DMX IN, and the controller output (universe).
The device behaves erratically or flickers	Check the terminator at the end of the line, the condition and wiring of the cables (shield on pin 1 only), the number of devices on the line (32 at most), and that the line is not split without a splitter.
Only some devices on the line respond	Check the cable and connectors between the last working and the first non-working device, and make sure all devices on the line are switched on.
Devices respond to the wrong channels or affect each other	Check that the addresses do not overlap and that the DMX mode on the devices matches the patch in the controller.
The device or the connected load does not light up although it receives DMX	Check the values of the dimmer, shutter and strobe channels against the DMX channel table. For the DMX modes for which the sources state it, the chapter DMX channels gives under the mode's heading which channels must be open.
Movement is reversed	Check whether Pan/Tilt inversion is enabled in the device menu or in the controller.
Moving parts do not reach the correct position after power-on or transport	Switch the device off and on again to reset the position, and make sure the transport lock, if any, is released. If this does not help, contact a service center.
Movement is jerky	Check the value of the Pan/Tilt speed channel, if the device has one, and the stability of the DMX signal.

13 Disposal

The crossed-out wheeled bin symbol on the product, in the manual or on the packaging means that the product must not be disposed of with unsorted household waste at the end of its life.

Take the end-of-life equipment to a collection point, for example a municipal collection site or a retailer. Proper disposal enables materials to be recycled and helps prevent possible negative effects on the environment and human health.

Follow the regulations applicable in your country; in the Czech Republic, take-back is governed by Act No. 542/2020 Coll., on End-of-Life Products.

Recycle the packaging materials according to their type.